



PATENT

Applicant: Steven D. Clark Confirmation No.: 8607  
Serial No: 10/625,352  
Filing Date: July 23, 2003  
Art Unit: 1722  
Examiner: Joseph S. Del Sole  
Title: **LINEAR FLOW EQUALIZER FOR UNIFORM POLYMER  
DISTRIBUTION IN A SPIN PACK OF A MELTSPINNING  
APPARATUS**  
Atty Docket: NOR-1119

Cincinnati, Ohio 45202

Date: January 5, 2006

Commissioner of Patents and Trademarks  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**DECLARATION UNDER RULE 131**

I, Steven D. Clark (the inventor), being duly cautioned and sworn, submit this  
Declaration in response to the Office Action dated September 19, 2005, and state:

That I am the inventor of the invention entitled "Linear Flow Equalizer for  
Uniform Polymer Distribution in a Spin Pack of a Meltspinning Apparatus" described and  
claimed in the application for Letters Patent of the United States, Serial No. 10/625,352, filed  
July 23, 2003 ('352 application);

That this is a Declaration under the provisions of Rule 131 and the rules of  
practice for the United States Patent Office in support of said '352 application;

That prior to December 31, 2002, the filing date of U.S. Patent Publication  
Number 2004/0126454 in the name of Haynes et al., the invention described and claimed in the  
present application was reduced to practice in the United States of America;

That, as evidence of the reduction to practice of the invention described and

claimed in the '352 application, attached and incorporated into this Declaration are copies of original written records made by the undersigned inventor, bearing dates prior to December 31, 2002, but with said dates masked;

That the attached Exhibit includes engineering drawings of an apparatus for distributing thermoplastic material supplied from a plurality of liquid inlets in a cross-machine direction of a meltspinning apparatus that clearly demonstrate that such apparatus embodying the elements claimed in claims 1-24 of the '352 application, were reduced to practice by the undersigned inventor before December 31, 2002;

That the reduction to practice of the invention claimed in pending claims 1-24 of the '352 application is fully supported by the attached Exhibit, all acts having been performed in the United States of America before December 31, 2002, but with said dates now masked;

That the Exhibit demonstrates as follows:

That an apparatus for distributing thermoplastic material supplied from a plurality of liquid inlets in a cross-machine direction of a meltspinning apparatus was conceived of, made, and tested, and thus reduced to practice, before December 31, 2002;

That the apparatus, in one embodiment, included a first linear flow equalizer including a first plurality of flow passageways of substantially equal path length that extend in the cross-machine direction and in a downstream direction non-aligned with the cross-machine direction, said first plurality of flow passageways operating to divide a flow of a first thermoplastic material supplied from the plurality of liquid inlets into individual streams having a spaced relationship in the cross-machine direction; and a member disposed in the downstream direction from said first linear flow equalizer, said member having a surface oriented in the

cross-machine direction and positioned relative to said first plurality of flow passageways for merging the individual streams exiting from said first plurality of flow passageways to form a sheet of the first thermoplastic material;

That the apparatus, in one embodiment, included an inlet plate having a plurality of flow passageways for the thermoplastic material, the flow passageways being spaced substantially equidistantly from each other in the cross-machine direction; a first equalizer plate positioned in a downstream direction from said inlet plate and having a first plurality of elongated slots each centered about one of said plurality of flow passageways, each of said first plurality of elongated slots receiving a flow of the thermoplastic material from one of the flow passageways, and each of said first plurality of elongate slots extending in the cross-machine direction and including opposed closed ends substantially equidistant from one of said plurality of liquid passageways; a second equalizer plate positioned in the downstream direction from said first equalizer plate, said second equalizer plate having a first plurality of throughholes each substantially registered in alignment with one of said opposed closed ends of a corresponding one of said first plurality of elongated slots, each of said first plurality of throughholes receiving a flow of the thermoplastic material from one of said first plurality of slots, and said first and second equalizer plates cooperating to divide the flow of the thermoplastic material supplied from the plurality of flow passageways into individual streams having a spaced relationship in the cross-machine direction; and a member disposed in the downstream direction from said second equalizer plate, said member having a first surface oriented in the cross-machine direction and positioned for merging the individual streams exiting from said first plurality of throughholes to form a sheet of the first thermoplastic material.

Therefore, in summary, the attached Exhibit discloses and supports the reduction to practice of the apparatus for distributing thermoplastic material supplied from a plurality of liquid inlets in a cross-machine direction of a meltspinning apparatus that is the subject of and is claimed in Application Serial No. 10/625,352, all the acts of which occurred in the United States of America BEFORE December 31, 2002, and thus precede the effective filing date of U.S.

Patent Publication Number 2004/0126454.

Further affiant saith naught.

By SRICK  
Steven D. Clark

Date 1/5/2006

STATE OF GEORGIA       )  
COUNTY OF DAWSON )

2006

Sworn to and subscribed in my presence this 5th day of January

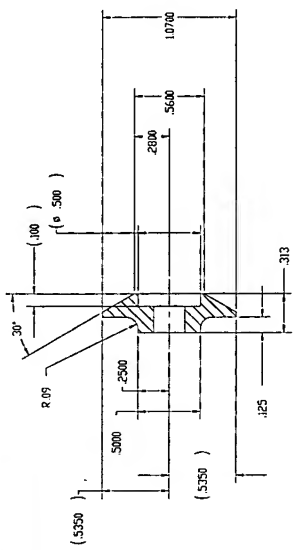
(SEAL)

Judith Hunsford  
Notary Public

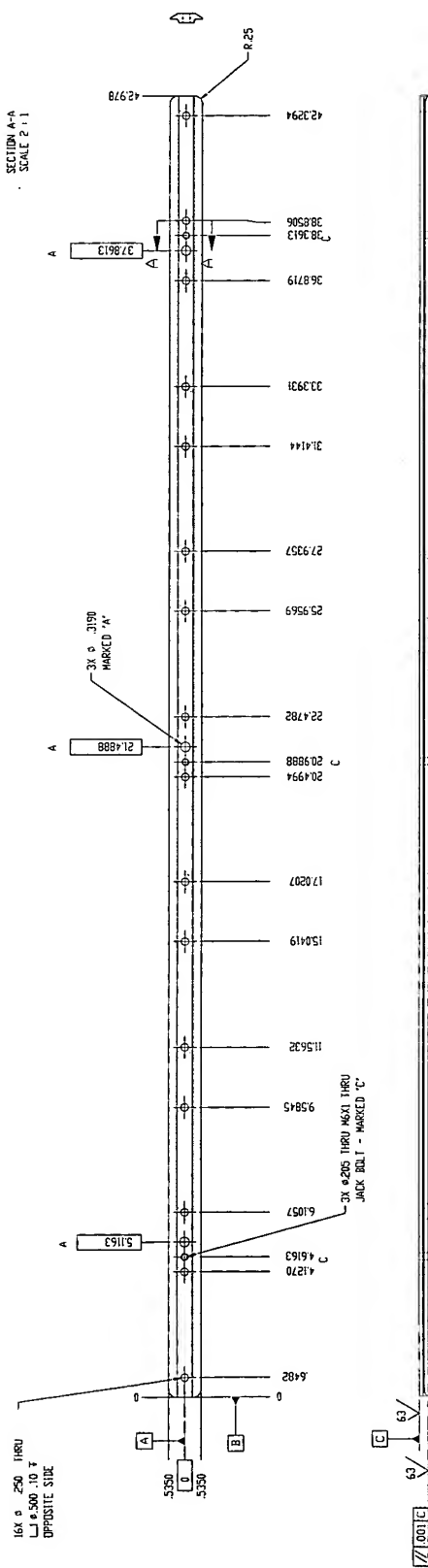
# **EXHIBIT**

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.  
 DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.  
 DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.

- NOTES  
 1) MATERIAL 17-4 OR 15-5 PH SST  
 2) DEBURR SHARP



SECTION A-A  
 SCALE 2:1.1



<p>123051</p> <p>Rev. 1/2014</p> <p>123051</p>		<p>123051</p> <p>Rev. 1/2014</p> <p>123051</p>	
<p>Nordson Corporation</p> <p>123051</p> <p>123051</p>		<p>Nordson Corporation</p> <p>123051</p> <p>123051</p>	
<p>PLATE, DIST. - SHEET FORMING</p>		<p>PLATE, DIST. - SHEET FORMING</p>	
<p>DO NOT SCALE USE DIMENSIONS ONLY</p>		<p>DO NOT SCALE USE DIMENSIONS ONLY</p>	
<p>DATE: 12/1/14</p> <p>DESIGNED BY: [Signature]</p> <p>CHECKED BY: [Signature]</p> <p>APPROVED BY: [Signature]</p>		<p>DATE: 12/1/14</p> <p>DESIGNED BY: [Signature]</p> <p>CHECKED BY: [Signature]</p> <p>APPROVED BY: [Signature]</p>	
<p>123051</p> <p>Rev. 1/2014</p> <p>123051</p>		<p>123051</p> <p>Rev. 1/2014</p> <p>123051</p>	



1. MATERIAL: EXISTING HILLS SPURBOND SPINPACK INPUT PLATE.

2. MACHINE FINISH FOR ALL NEW FEATURES:

3. ALL DIMENSIONS IN THIS DRAWING ARE ONLY RELATED TO THE FEATURES THAT NEED TO BE MODIFIED.

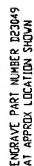
4. GENERALLY ALL NEW FEATURES GENERATED SHOULD BE SYMMETRICAL TO EXISTING RELATED FEATURES.

[illegible]

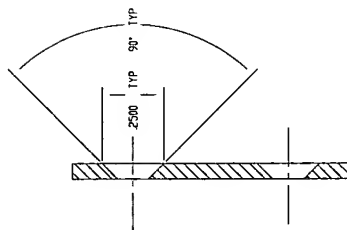




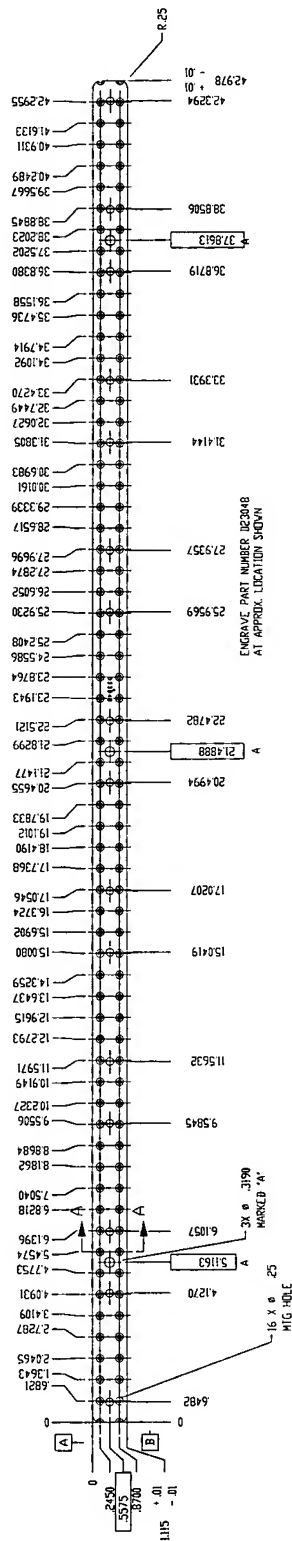
NOTES

[illegible]

NOTES  
1) MATERIAL: .0625 +/- .005 THICK 17-4 SST (15-5 OPTIONAL)  
2) DEBURR SHARPS



SECTION A-A  
SCALE 4 : 1

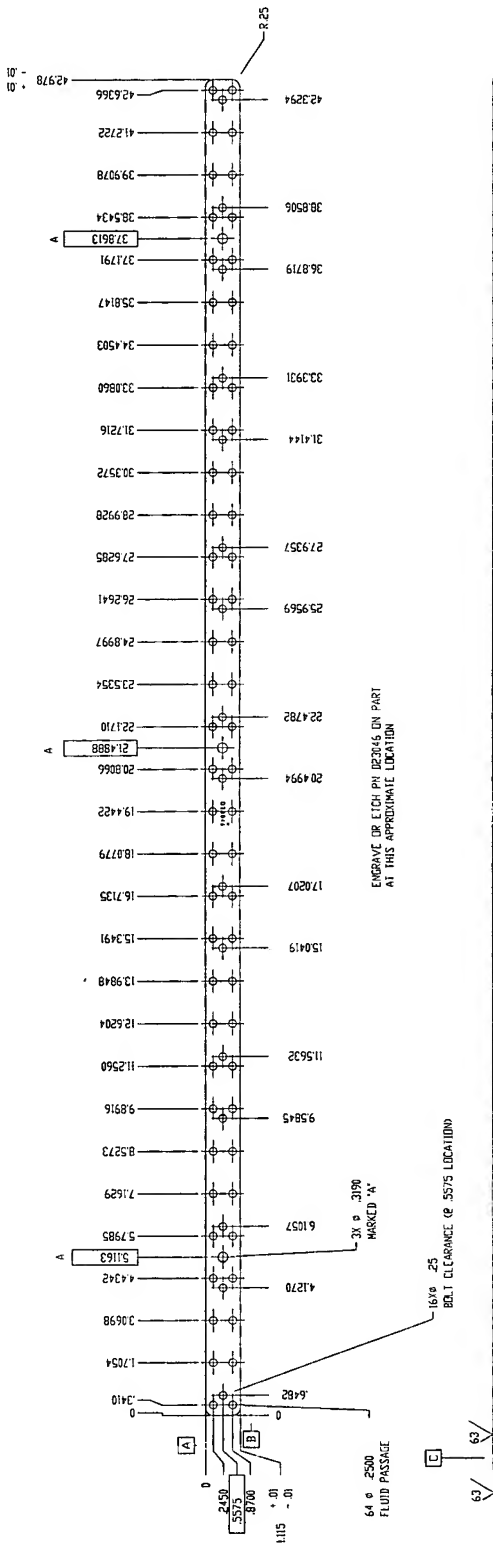


A diagram of a single neuron. It consists of a square input box on the left containing the number 63, connected by a horizontal line to a circular body on the right. Inside the circle is a smaller circle containing the number 63. A vertical line extends from the top of the circle to a triangular output box on the right, which also contains the number 63.

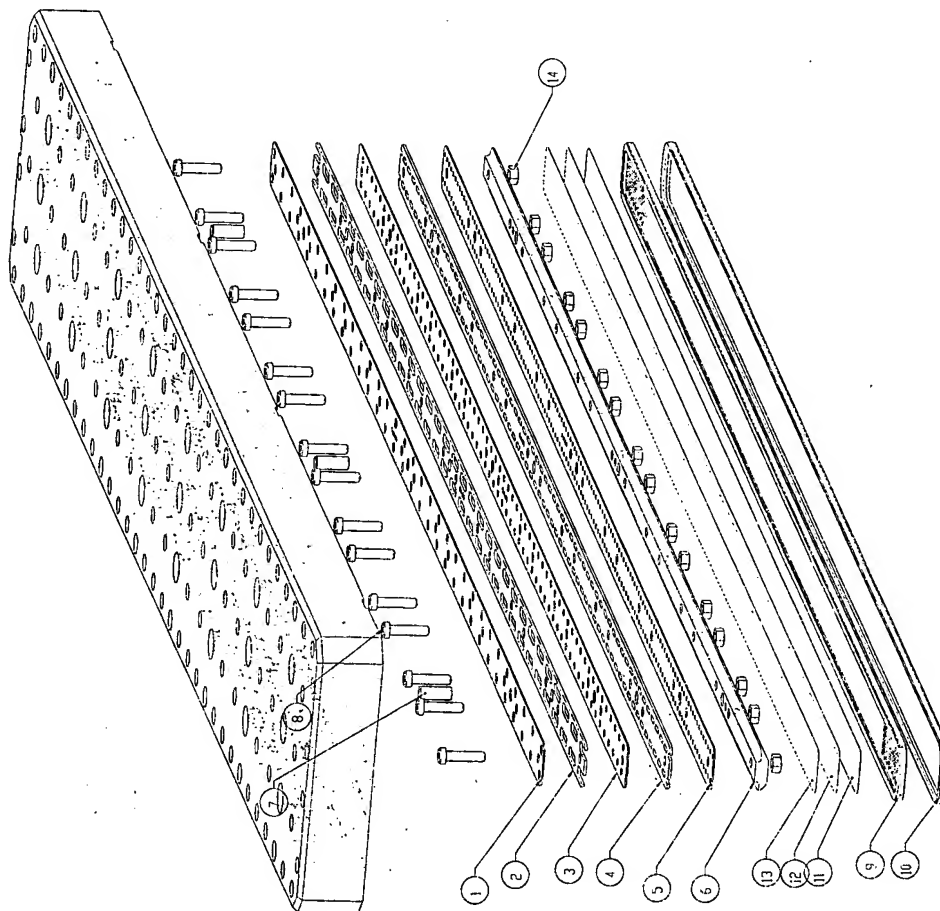
[illegible]



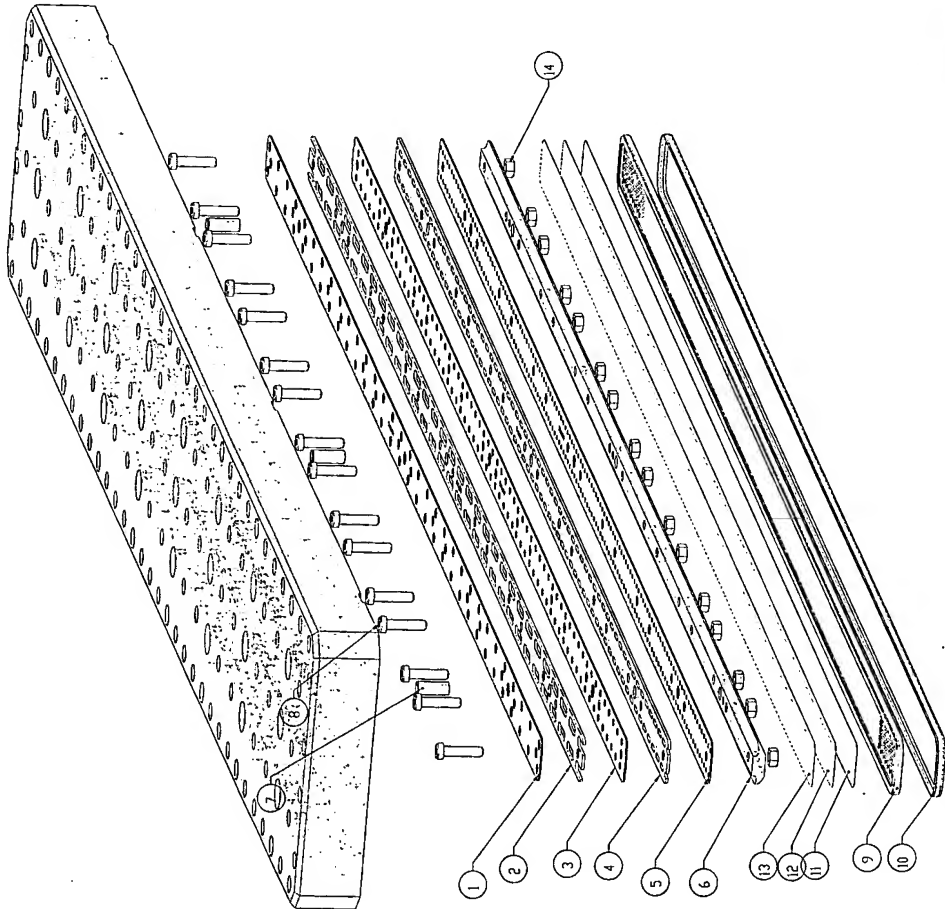
NOTES  
1) MATERIAL: .0625 +/- .005 THICK 17-4 SST (15-5 OPTIONAL)  
2) DEBURR SHARPS

[illegible]

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	123046	PLATE, DIST. - LEVEL 3
2	2	123047	PLATE, DIST. - LEVEL 4
3	1	123048	PLATE, DIST. - LEVEL 5
4	1	123049	PLATE, DIST. - LEVEL 6
5	1	123050	PLATE, DIST. - LEVEL 7
6	1	123051	PLATE, DIST. - SHEET FORMING
7	1	123051	PIN, DOWEL, 8MM X 20MM PLU1
8	16	15702	SCREW, SHCS, M6X1 X 25MM LP
9	1	123042	PLATE, BRACKET/FILTER - SB SPINPACK
10	1	123067	SEAL, BAND
11	1	123068-03	SCREEN, WOVEN WIRE - FILTER
12	1	123068-02	SCREEN, WOVEN WIRE - FILTER
13	1	123069-01	SCREEN, WOVEN WIRE - FILTER
14	16	XXXX-1	NUT, HEX - M6
15	1	1500000	SPINPACK INPUT

[illegible]

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	D23046	PLATE, DIST. - LEVEL 3
2	1	D23047	PLATE, DIST. - LEVEL 4
3	1	D23048	PLATE, DIST. - LEVEL 5
4	1	D23049	PLATE, DIST. - LEVEL 6
5	1	D23050	PLATE, DIST. - LEVEL 7
6	1	D23051	PLATE, DIST. - SHEET FORMING
7	3	D23052	PIN, DOWEL 8MM X 20MM FULL DUTY
8	16	15702	SCREW, SHCS M6X1 X 25MM LP
9	1	D23042	PLATE, BREAKER/FILTER - SB SPINPACK
10	1	D23067	STEEL BAND
11	1	D23068-03	SCREEN, WOVEN WIRE - FILTER
12	1	D23068-02	SCREEN, WOVEN WIRE - FILTER
13	1	D23068-01	SCREEN, WOVEN WIRE - FILTER
14	16	XXXX-1	NUT, HEX - M6
15	1		Spinpack input/SPINBOND SPINPACK INPUT



D23043		REVISION NO.	
NORDSON CORPORATION 12000 Springdale Buckeye, Georgia 30611-4672 TELEPHONE 404-286-2600			
<b>Nordson</b>			
FLOW EQUALIZER ASSEMBLY			
SPINBOND SPINPACK			
DO NOT SCALE USE DIMENSIONS ONLY			
DATE	BY	CHKD	APP'D
10/15	10/15		
REV	DATE	BY	CHKD
1	10/15		
SHEET 1 OF 1			



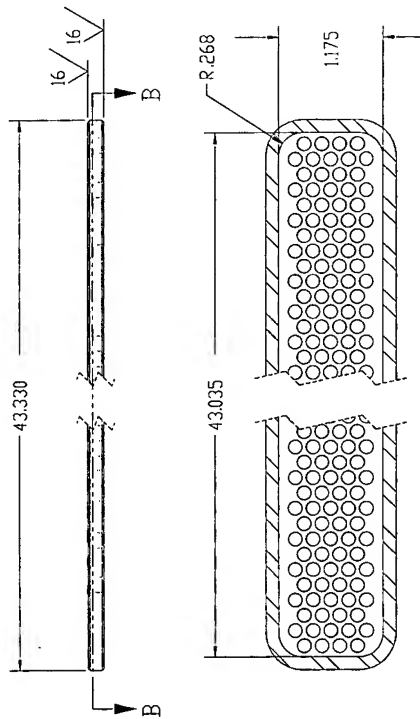
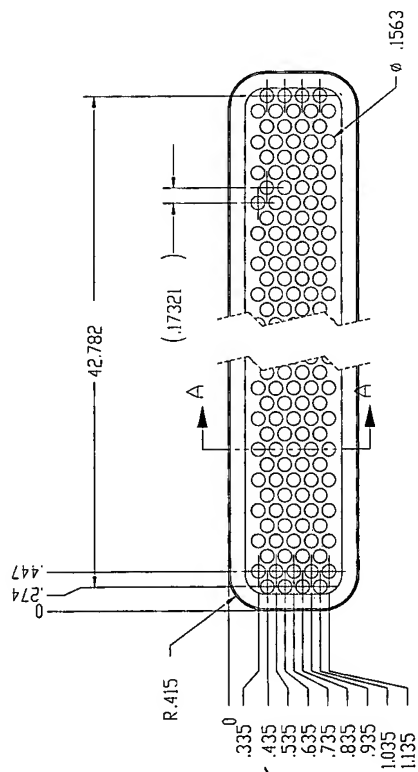
1) MATERIAL: 3004 ALUMINUM

[illegible]

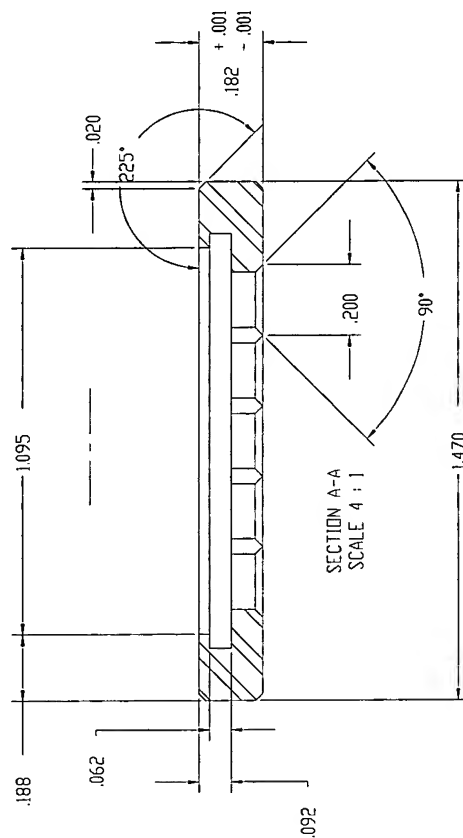


# NOTES

- 1) MATERIAL: 17-4 PH DR 15-5
- 2) QTY: 3 PER NEXT ASSY



SECTION B-B



SECTION A-A  
SCALE 4:1

C23042 ITEM PART NO.		Norden Corporation Filter Systems 12 Norden Drive Boswellville, Georgia 30534-6672 Phone: 404-299-4842	
Norden		DO NOT SCALE: USE DIMENSIONS ONLY	
PLATE, BREAKER/FILTER - SB SPINPACK		DO NOT SCALE: USE DIMENSIONS ONLY	
DATE	DATE	DATE	DATE
DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY
CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY
APPROVED	APPROVED	APPROVED	APPROVED
SIZE	SIZE	SIZE	SIZE
C23042	C23042	C23042	C23042

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